12 years, served as an altar boy, and was interested in Church affairs even before he was called to his religious vocation. Father Pat was ordained on June 3, 1950 by Bishop Francis J. Hass at St. Andrew's Cathedral in Grand Rapids, and within the month he was assigned as assistant at Holy Trinity in Ironwood. In 1951 he became an assistant at St. Thomas Catholic Church in Escanaba, and in 1953 became an assistant at St. Mary and St. Joseph in Iron Mountain, where he also served as chaplain to veterans in the hospital there.

Like his religious predecessor Bishop Baraga, Father Pat spent time in several small parishes in the Upper Peninsula of Michigan—Dollar Bay, Loretto, Quinnesec, White Pine, and Bergland, before his posting to Menominee.

Perhaps because of his own Catholic schooling, Father Pat has always shown that his commitment to his parish—to all local families—lies outside the walls of his beautiful and more than 100-year-old Gothic church. He regularly visits Menominee Catholic Central School, meeting and greeting parents, teachers and children in this more informal setting.

Father Pat has become well-known for his homily—his brief moment of addressing the congregation during each Mass. A quick sense of humor has always served him well in helping to drive home the important lesson he wished to teach each week.

I have always admired Father Pat for his positive outlook and his concern for his congregation. But it was when tragedy struck my own family that the depth of his wisdom, love, and advice, to me, to my wife Laurie and my son Ken was truly revealed. He counseled, sheltered, and guided us through our darkest hours, and his homily to my son BJ captured the essence of this vital young man for friend and stranger alike. For these kind acts in our greatest time of need, I and my family will always be grateful to Father Pat.

Mr. Speaker, moments of crisis often bring brief flashes of insight so brilliant that we are forever changed in our view of the world. In a moment of darkness, I was given an opportunity to truly understand the mission of a parish priest as an agent of divine compassion and strength. I and my family were held in Mighty Hands and bathed in a river of sublime love. Father Pat, a man of the people and a man of God, has spent 50 years shaping himself to be a funnel of that great Power. There can be no greater calling.

DEBATE ON DEFENSE APPROPRIATIONS

HON. EARL BLUMENAUER

OF OREGON

IN THE HOUSE OF REPRESENTATIVES

Thursday, June 8, 2000

Mr. BLUMENAUER. Mr. Speaker, I voted against the Defense Appropriations bill last night because of its pricetag that is unprecedented in peacetime and unjustified by the threat, and the misplaced priorities within the bill.

Representative DEFAZIO'S amendment was a step in a more rational direction. It would have reduced the next two years' purchases of F–22 fighter aircraft, as recommended by the General Accounting Office, and redirected the savings to readiness and quality of life accounts.

It was a modest amendment, and it did not cut money from the defense budget. It just spent it on higher-priority issues at a time when the F–22 continues to experience technical problems and we already have the world's most advanced fighter, the F–15.

The $930 million saved would have been spent instead on items that were not funded at the level requested by the Department of Defense, or were included on the Pentagon's unfunded ''wish list.'' Those items include additional funding for troops on food stamps, nuclear threat reduction, bonus payments to sailors on sea duty, facilities maintenance, spare parts, and recruiting.

I want to also speak to the larger issues of the bill. We made some gains this year on the issue of military retirees' health care. Most important is this bill's provision of $94 million for a pharmacy benefit for all Medicare-eligible military retirees and eligible family members. This set an important precedent for us to eventually provide prescription drug coverage to all Medicare recipients. Those who have served in our military are a well-deserving group with which to start.

This bill continues various health care demonstration projects—including Medicare subvention and the Federal Employees Health Benefits Plan. Another important aspect of military retiree health care included in this bill is the Uniformed Services Family Health Plan. These are locally-run, community-based HMOs that provide military retirees another choice. I look forward to the findings of the independent oversight panel funded in this bill which will present recommendations to Congress on a permanent military health care program for the Medicare-eligible.

Unfortunately, there continue to be unmet needs. The Department of Defense Comptroller has just done a study that shows that the military health care system for active-duty and retirees up to age 65 as currently structured is underfunded over the next 6 years by $9 billion.

In addition to taking care of its people, our military has an important role to play in taking care of the environment, Congress needs to make clear that cleaning up after itself is a cost of doing business for our military just as it is for any other polluter.

DOD is responsible for environmental cleanup at thousands of what are known as Formerly-Used Defense Sites. At many of these properties, owned by private parties and state, local, and tribal governments, the public may come into contact with residual contamination. The cost of completing this cleanup is estimated at over $7 billion by the Army Corps of Engineers, yet funding in this bill is less than $200 million.

Another danger to communities is unexploded ordnance, old bombs and shells that could kill or injure people who encounter them. The cost of clearing these bombs is estimated at $15 billion by the Defense Science Board. The consistent underfunding of this challenge could begin to be addressed if it had its own line item in the defense budget. I call upon the Administration to create this line item in the request it is preparing now for submission to Congress for FY02 funding.

More than a decade after the Soviet Union collapsed, our investment in national defense has returned to cold-war levels. During the cold war, the United States spent an average of $325 billion in current year dollars on the military. This year's budget resolution gave the Pentagon $310 billion—95 percent of cold-war levels and 52 percent of discretionary spending.

And now Monday's Washington Post has a front-page story stating that, starting now, the Joint Chiefs of Staff plan to submit budget requests that call for additional spending of more than $30 billion a year through most of this decade.

There is no reason to continue our reliance on a cold-war economy. Our massive investments in weapons and bases could be replaced with massive investments in education and health care and the other things that make for livable communities. While we are first in military expenditures among industrialized countries, we are 17th in low-birthweight rates, 21st in eighth-grade math scores and 22nd in infant mortality.

The defense budget is large, certainly large enough to fund the programs that are needed for the people who serve and have served us and for the environment. Instead, it spends too much on duplicative weapons systems and questionable technologies at a time when we lead the world many times over in military might. We need to get our priorities right.

DEBATE ON THE FUTURE OF THE F–22

HON. PETER A. DeFAZIO

OF OREGON

IN THE HOUSE OF REPRESENTATIVES

Thursday, June 8, 2000

Mr. DEFAZIO. Mr. Speaker, during the debate on the fiscal year 2001 Department of Defense appropriations bill, there was a rather rancorous debate about the future of the F–22. I submit for the record a devastating critique of the F–22 written by retired Colonel Everest Riccioni as well as a letter he wrote correcting misstatements made during the House floor debate.

Colonel Riccioni is not just any critic of the F–22. His credentials are impeccable. He was one of three legendary ''Fighter Mafia'' mavericks who forced the Pentagon to produce the F–16 to improve U.S. air superiority. He served in the Air Force for 30 years, flew 55 different types of military aircraft, and worked in the defense industry for 17 years managing aircraft programs, including the B–2 bomber.

We should heed his warning that the F–22 will not work as advertised.

JUNE 8, 2000.

Representative RANDY CUNNINGHAM,
House of Representatives,
Washington, DC.

DEAR REPRESENTATIVE CUNNINGHAM: Your comments during yesterday's floor debate require response. The comment about the F–15 not keeping up with the F–22 does not establish the existence of supercruise, and reflects your lack of insight into supersonic cruise. Cruise means the ability to cover distance

and it is not a speed. Proof of supercruise is established by a number, specifically the number of miles that can be covered while at a supersonic Mach like 1.6. This number is never forthcoming because few know the definition of supercruise or are unwilling to reveal it.

The fact that the F–16 flown by General Ryan could not keep up with the F–22 is again an irrelevant speed statement on the relative speed of the two aircraft. The requirements for the F–16 specifically stated that there was no requirement that it fly faster than Mach 1.6, a fact probably unknown to the general. Had the general been flying a 40 year old F104A–19, he could have flown formation with the F–22.

Pragmatic supersonic cruise is the ability to sustain significant supersonic speeds (like 1. 6–1.8) for combat relevant distances. For perspective, the original design mission for the Advanced Tactical Fighter, cum F–22 was a 100 mile subsonic cruise-out to the Russian border, 400 NM supersonic penetration at 1.6 Mach, consumption of the combat fuel, a 400 nautical mile supersonic return to the border at Mach 1.6, with a 100 NM return to land with normal reserves.

A true measure of the super cruise potential of the F–22 is—the penetration supersonic distance that can be flown at 1.6 Mach out and back, with the same 100 nautical mile legs and the same fuel reserved for combat and landing reserves. The supersonic penetration distance is the validation of supercruise. This number has not been established. The supercruise potential of the F–22 remains unknown.

If that number is 50 NM it is a fruitless achievement that the F–104 can easily fulfill using its afterburner. A 100 NM penetration can also be accomplished by the F–104A–19. A 200 NM penetration is not a great achievement; 300 NM means the F–22 is a pragmatic supercruiser, 400 NM will remain a dream. The distance number validates whether the F–22 has it, nothing else.

Retention of the wrong definition will forever retain confusion.

Sincerely,

COL. EVEREST RICCIONI,
Rancho Palos Verdes, CA.

THE F–22 PROGRAM—FACT VERSUS FICTION

(By Everest E. Riccioni, Col. USAF, Ret.)

THE DREAM

To provide the USAF Air Superiority for the period following 2005.

To Conduct—Offensive Counter Air Operation deep in Russia—Its Primary Mission (300 Nautical Mile (NM) Combat Mission—100 NM cruise to the point of penetration—200 NM supersonic ingress and egress plus combat and fuel reserves).

To provide a 750–800 Aircraft Fleet to replace the aging F–15 Fleet.

To be designed to a Unit Flyaway Cost Limit in 1986 dollars—$35 Million.

To control cost by conforming to a Weight Limit—50,000 lbs (Cost and Weight comparable to the extant F–15—clearly the imagined F–22 would have been a bargain).

Dominant Characteristics: High Stealth; Effective Supersonic Cruise; Ultra-High Performance and Maneuverability; and Superior Avionics for Battle Awareness and Effectiveness.

Additional Aims: To Rejuvenate the Fleet (Reduce the average age); Design for Low Maintenance (3 man-hours per sortie); and Form a High-Low Mix with the Joint Strike Fighter (JSF) fleet.

THE REALIZATION

SUMMARY

Unrealized Dreams

The dreams for Stealth, Supercruise, Ultra-High Climb, Acceleration, and Maneuvering Performance have not been realized. The Outstanding Avionics will not be properly tested before purchase and possibly not even before combat.

High Cost, Low Numbers

The number of F–22s purchased will not provide a critical mass of fighters.

The ''Dream'' of 800 fighters for $70 Billion fell to 648 for $64.2B (after a 1992 Selected Acquisition Report), to 442 for $64.2B (after the Bottom-Up Review of defense strategy), and to 339 for $64.2B (after a Quadrennial Defense Review).[2] Study groups and the Congressional Budget Office seeking responsible funding are considering options of 175 and even 100 F–22s. This is a total program cost of more than $200M per aircraft—one-third the cost of the B–1! This cost (predicted in 1976) is worse than obscene.[3]

Despite high funding levels—the future size of the Air Combat Command will soon be greatly reduced.

The low number of F–22s will not rejuvenate an aging F–15, F–16 fleet. (Algebraic averaging)

A mix of F–22s and JSFs cannot be a High-Low Mix. It will be An Ultra-High—High Mix. There is no low element. The complementary F–15 and F–16 do both the air superiority and air-to-surface missions. The F–22 mainly does air superiority missions. Both have deserted our US Army.

The few F–22s possessing quasi-F–15 performance will degrade the air superiority capability of the Air Combat Command, composed of 1600 fighters.

Our decision-makers have (again) opted for unilateral disarmament in the face of their perceived threats.[4]

VALIDATION

Stealth

The F–22 is not a Stealthy Aircraft.

Stealth means the proper suppression of all its important ''signatures''—Visual Signature, Radar Signature, Infrared Signature, Electromagnetic Emissions, and Sound.

Visually—The F–22, one of the world's largest, most identifiable fighters, cannot hide in daylight. Its role is in daylight. Stealth operations are night operations. Unfortunately stealth against radar invariably increases the size of a fighter making it more visible.

The radar signature is utterly inadequately reported. Only a single data number is provided to congressional committees and the GAO—the average radar signature in the level forward direction within 20 degrees of the nose, presumably to enemy fighter radars. In the B–1B reporting fiasco, the 100/1 signature advantage over the B–52 became a real 1.8/1. One cannot design an aircraft to simultaneously hide from low and medium frequency ground radars and from high frequency airborne fighter radars. Properly, all the data should be portrayed and reported—for all azimuths, for all ''latitudes,'' and for all radar frequencies. Single data points constitute lying by omission and gross incompleteness.

The temperature increases of supersonic cruising flights make the F–22s beacons in the sky to infrared sensors.

Fighters, with radar to search for and find the enemy autonomously, at long ranges, cannot hide their high powered electric emissions to modern, sophisticated, Russian equipment. The Russians excel at this art and export their equipment to many nations. Further, F–22 detection of enemies by radar is an inverse fourth power phenomenon, while detection of the F–22's radar is an inverse square phenomenon, giving the advantage to the enemy. In other words, the F–22's radar will be detected by an enemy plane before the F–22 detects the enemy.

It appears that designing air superiority aircraft primarily for radar stealth is an error.

Supersonic Cruise—''Supercruise''

The F–22 has not yet demonstrated effective supersonic cruise.

The USAF has never appreciated that speed without persistence is meaningless. Proof—Six USAF aircraft capable of Mach 2.2 never exceeded 1.4 Mach in combat over North Vietnam in 10 years of war, in hundreds of thousands of sorties. The F–15 has never demonstrated its performance guarantee of Mach 2.5 flight in a combat configuration on a realistic combat mission profile.

The USAF has the wrong definition of supercruise—(supersonic flight in turbojet thrust, i.e. without using an afterburner.) Cruise means covering distance efficiently. Fighters with wings properly sized for subsonic maneuver achieve efficient supersonic flight at altitudes of 60,000 feet requiring partial afterburning thrust. This may be unknown to the testers since the test program limits testing to below 50,000. The proper cruise condition may remain unknown. All supercruisers cruise at very high altitudes using some afterburning (i.e. ramjet) thrust—MiG–31, SR–71, as did the many designs that I have studied, generated, or supervised. (Detailed aerodynamic-thermodynamic analysis is available upon request.)

The GAO report that the F–22 has demonstrated supercruise is specious and misleading. The reports have merely stated that the F–22 has demonstrated 1.6 Mach flight speeds in pure turbojet (dry) thrust. No report of distance traveled or persistence at those speeds was made. Supersonic speeds in dry thrust bode well, but this capability is not sufficient to achieve supercruise. Proper data are global radius of action and global persistence plots as functions of speed and altitude, for rational missions.

These data must be then compared to those of the F–15 and the ancient F–104–19 to establish progress. For example—the 40 year old F–104A–19 has twice the supersonic radius of the 20 year old F–15C at 1.7 Mach, and outaccelerates it at Mach 2.2. Compare! In comparison lies the proof of progress.

The Fuel Fraction of the F–22 is insufficient for pragmatic supersonic cruise missions. Fuel Fraction, the weight of the fuel divided by the weight of the aircraft at takeoff, impacts cruise-range, be it super- or subsonic. At today's state of the art, fuel fractions of 29 percent and below yield subcruisers; 33 percent provides a quasi-supercruiser; and 35 percent and above provides useful missions. The F–22's fuel fraction is 29 percent, equal to those of the subcruising F–4s, F–15s and the Russian MiG29 Flanker. The Russian medium range supersonic interceptor, the MiG–31 Foxhound, has a fuel fraction of over 45 percent. Supersonic cruise fighters require higher fuel fractions since they must have excessive wing for supersonic cruise. Breguet's range equation establishes the dependence of aircraft radius on speed, lifi-to-drag ratio, specific fuel consumption and the part of the total fuel fraction available for cruise.

The ''dream'' design mission was continually redefined and degraded to—a) conform

to physical reality, and—b) to reduce the uncontrolled cost and weight. (Flexible (rubber) Requirements.)

Ultra-High Performance

The F–22 does not provide a Great Leap Forward in performance relative to the F–15C or MiG–29. At 65,000 lbs, with 18,500–18,750 lbs of fuel, with two nominal 35,000 lb thrust engines—it has the thrust to weight ratio of the F–15C, the fuel fraction of the F–15C, and a wing loading that is only slightly inferior to that of the F–15C, so it will accelerate, climb, and maneuver much like the F–15C for reasons of basic physics.

There are two differences from the F–15—thrust vectoring and supersonic speeds in dry thrust. Thrust vectoring allows the F–22 to maneuver controllably at sub-stall speeds, which other aircraft cannot. This, in the helicopter speed domain, is in seeming contradiction to an aircraft designed for supersonic engagement with slashing attacks using its beyond visual range missiles.

The flight test program to validate maneuverability is utterly inadequate. Using a single number—the maximum steady-state G at 30,000 ft at 0.9 Mach—on an aircraft that operates from 40 knots to beyond Mach 2, from sea level to above 60,000 ft is a throwback to the Dark Ages of aircraft evaluation. Proper presentations are global, all-altitude all-speed plots at the two major power settings. They must be compared to friendly and enemy aircraft. Comparison reveals progress, the whole truth, and even allows the formulation of battle tactics.

Superior Avionics

The expectations for the avionics are to provide great battle awareness and effective weapons management. The F–22 is to autonomously identify (ID) the enemy from friend, from neutral, regardless of the country that produced the aircraft.

But, testing will not be fully completed before going into production! The pressure is on to meet production schedules and to do incomplete testing to save time and money. Incomplete testing is fatal and extremely wasteful. B–1 avionics, similarly treated, still do not function in the aircraft after two decades, despite large transfusions of funds.

Such refined identification capability has never been achieved though frequently promised. Given failure and dependence on visual identification, the F–22 will be at the level of the F–15 and F–16. The requirement for visual ID made the AIM–7D/E, the Talos, the complex long-range Phoenix missile and the Aegis missile cruiser relatively worthless. The avionics are to be treated as ''guilty'' until tested and proven to be innocent.

The software is more extensive and complex than that of the Aegis missile cruiser. Dependence on the integrated, complex system belies the dream of a low maintenance requirement.

Most likely result—The F–22 will be declared combat ready much before it is.

Relevance of Air Superiority

The relevance of air superiority in the modern world is vastly overstated. The USAF has faced no air superiority force since the Korean War. Nor have our ground troops faced an enemy air-to-surface threat.

US air superiority fighters are aimed at enemy fighters—the irrelevant half (of the problem. Our foreseeable enemies achieve air superiority with competent, relatively affordable, highly mobile Russian vehicles carrying surface-to-air missiles (IR radar, and optically guided), and two 30mm cannon (the Tangkuska). These are armed with SA–6, SA–8 and SA–10 missiles. The F–22 only counters non-existent enemy fighters. Hence air-to-surface F–16s, A–10s, and F–15s become the de facto air superiority aircraft. Attempts to equip the F–22 to suppress enemy defenses are easily defeated by enemy tactics used in Vietnam and Serbia.

The USAF is already over-equipped to handle any imaginable air superiority problem. Today, Air Combat Command is capable of handling any coalition of air superiority threats. Air Combat Command has the most important factor—competent pilots, the second most important factor—large numbers (1,600–2,400 fighters), and the least important advantage—the best aircraft. In Germany during World War II US numbers, not quality, reigned supreme.[5] The USAF has always had and has always depended upon superior numbers to win. Numbers guarantee victory. Numbers develop intensity and allow multiple attacks.

The US has no realistic future air superiority problem facing it. A sane US will not war with India, China, or Russia. Nor will we war with France, England, Japan, and Germany. None of these nations will attack the US. Other countries are not threats. Nor will we war with our friends to whom we sold US aircraft.[6] The US must minimize its enemies, not create them artificially to sustain the arms industry. Even Canada has been listed as a possible threat! Yet, the US continues to seek foreign sales before our modern aircraft see service in the USAF and US Navy. (Examples—the US Navy's F–14, F–18E, and the F–22.)

The conjured need to cope with our weapons places our country in a self-perpetuating arms race with itself.

CONCLUSION

Money expended on the program will weaken Air Combat Command and the USAF in two ways—

By getting involved with an aircraft that has no function, and no relevance to modern wars.

By denying themselves funds they really need—for training and for new aircraft to support a US Army, completely shipped of supporting airpower.

Approximately 90 percent of the program funding can still be saved, and reprogrammed to relevant Air Force programs.

ARTICLE BY JAMES L. HECHT

HON. MARK UDALL

OF COLORADO

IN THE HOUSE OF REPRESENTATIVES

Friday, June 9, 2000

Mr. UDALL of Colorado. Mr. Speaker, as we go forward with the budget process, I'd like to bring the attention of my colleagues to an article published in the Baltimore Sun. The author is a senior fellow at the Center for Public Policy and Contemporary Issues at the University of Denver. Although I don't necessarily agree with all the points he makes, I think the article is valuable for purposes of informed debate.

[The Sun: Tuesday, March 21, 2000]

SPECIAL INTEREST DEFENSE

(By James L. Hecht)

For a while, it looked as if Congress might do the right thing: kill an unneeded weapons program, saving $60 billion and increasing security. But in the end, Congress gave a higher priority to the interests of Lockheed Martin, providing $1 billion in this year's budget to buy up to six F–22 fighters—and keeping alive the possibility of buying more than 300 more at a cost of at least $187 million each.

The F–22 is an example of how the military budget is driven more by the desire of members of Congress to get re-elected than by security. The public interest is no match for lobbyists for the military-industrial complex who in 1996 contributed an average of $18,065 to every member of Congress, almost three times the level of tobacco-industry influence peddling.

Why is the F–22 an unneeded weapon? The American F–15 and F–16 fighters are the best in the world and, if more fighters are needed, these can be built for less than one-quarter the cost of an F–22. Moreover, the F–22 may be outdated soon by the Joint Strike Fighter, an even better plane on which the Pentagon is spending billions for development.

We spend more than $30 billion a year to maintain more than 10,000 nuclear warheads. A 1,000-warhead force with the destructive force of 40,000 Hiroshima explosions would be more than enough—and save about $17 billion a year.

How political pork supersedes military needs is demonstrated by the appropriation in last year's budget of $435 million for seven C–130 cargo transport planes. The Pentagon requested only one. They got seven because manufacture of these planes provided jobs in Newt Gingrich's district.

Huge expenditures for unneeded weapons is one reason that U.S. military spending is more than twice as much as all potential adversaries combined, including Russia, China, Iraq, Iran and North Korea. While polls indicate that 72 percent of Americans believe it better to have too much defense than too little, 83 percent think that spending should be no greater than that of all potential adversaries combined.

America's unreasonable military spending also results from the policy that the United States be able to simultaneously fight and win two major regional wars without the help of allies. This two-war doctrine is rooted in the idea that the United States should be able to exercise unilaterally its ''global responsibilities.''

But having this capability and then using it to act alone or with little military support from allies—as we did in Kosovo and continue to do in the skies over Iraq—decreases our security. We make bitter enemies of people that are no threat to us militarily, but can be a serious threat if in anger and frustration they resort to terrorism.

Our security also is decreased because our huge military spending consumes money that otherwise could be spent on education. With the economic success of nations becoming increasingly more dependent on a well-educated work force, shortchanging educational needs is a threat to the economic security of Americans in the 21st century.

Security is the most important function of government. But we should not—in the name of security—needlessly spend tens of billions of dollars a year for the benefit of politically connected interests.

ISSUES IN CYPRUS AND KOSOVO

HON. JOHN J. DUNCAN, JR.

OF TENNESSEE

IN THE HOUSE OF REPRESENTATIVES

Friday, June 9, 2000

Mr. DUNCAN. Mr. Speaker, Harry Moskos is the highly-respected editor of the Knoxville